

Food and Drug Administration 10903 New Hampshire Avenue Document Control Center - WO66-G609 Silver Spring, MD 20993-0002

June 29, 2015

NOVA® Implants Ltd. c/o Ms. Daniela Levy Sterling Medical Registration 22817 Ventura Blvd Woodland Hills, California 91364

Re: K150363

Trade/Device Name: NOVA® Dental Implants System

Regulation Number: 21 CFR 872.3640

Regulation Name: Endosseous Dental Implant

Regulatory Class: Class II Product Code: DZE, NHA Dated: May 13, 2015 Received: May 27, 2015

## Dear Ms. Levy:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the <u>Federal Register</u>.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Division of Industry and Consumer Education at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address

http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to

http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Industry and Consumer Education at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address

http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm.

Sincerely yours,

Kiang -S

for Erin I. Keith, M.S.

Director

Division of Anesthesiology, General Hospital,
Respiratory, Infection Control, and
Dental Devices
Office of Device Evaluation
Center for Devices and
Radiological Health

Enclosure



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SECTION 4 -	Indication for Use Statement			
510(k) Number (if known):				
K150363				
Device Name:				
NOVA® Dental Implants Syst	em			
Indications for Use (Describe)				
Indications for Use:				
NOVA® Dental Implants Syst	tem is indicated for use in surgical and restorative applications			
for placement in the bone of t	he upper or lower jaw to provide support for prosthetic devices,			
such as artificial teeth, in or	der to restore the patient's chewing function. NOVA® Dental			
Implants System is indicated also for immediate loading when good primary stability is				
achieved and with appropriate	e occlusal loading.			
Type of Use (Select one or both, a	s applicable)			
☑ Prescription Use (Part 21 CFR	801 Subpart D)   ☐ Over-The-Counter Use(21 CFR 801 Subpart			
PLEASE DO NOT WRITE BEI	LOW THIS LINE - CONTINUE ON A SEPARATE PAGE IF NEEDED			
FOR FDA USE ONLY				
Concurrence of Center	for Devices and Radiological Health (CDRH) (Signature)			



## **SECTION 5** - **510(k) Summary (21 CFR 807.92)**

# **510(k) Number K** 150363

Submission Owner NOVA® Implants Ltd.

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3 Submission Date June 21, 2015

4 Device Trade Name NOVA® Dental Implants System

5 Regulation Description Root-form Endosseous Dental Implants and

Abutments

6 Classification Device Name : Endosseous dental implant

Product Code : DZE, NHA
Regulation No : 872.3640

Class : II

Panel : Dental

7 Reason for the Premarket Notification Submission : New Device

8 Identification of Legally Marketed Predicate Devices :

NOVA® Dental Implants System is substantially equivalent to Alpha-Bio Tec K063364 (primary predicate); And referenced predicate devices: SGS International K133362; A.B.Dental Devices K051719, K112440, K132125; Paltop K112795; Nobel Biocare



#### K050705;

in terms of intended use, indication for use, technological characteristics, performance and user interface.

The predicate devices are a Class II medical device.

#### 9 Device Description:

NOVA® Dental Implants System consists of internal hex dental implants, cover screws and healing caps; abutments system and superstructures; impression copy system & surgical instruments.

Internal hex implants:-

PSI implants are provided in diameters: 3.3, 3.75, 4.2, 5 & 6 with lengths 8, 10, 11.5, 13, & 16 mm. (16 mm is not provided for 6 mm diameter).

PCI implants are provided in diameters: 3.3, 3.75, 4.2, 5 & 6 with lengths 8, 10, 11.5, 13, & 16 mm. (16 mm is not provided for 6 mm diameter).

NOVA Dental Abutments internal hex system provides:

Healing Caps:

HC Series - Narrow (3.75 mm) - Platform height 2,3,4,5,6,7

HC Series - Standard (4.7 mm) - Platform height 2,3,4,5,6,7

HCW Series - Wide (6.00 mm) - Platform height 3,4,5,6

PMI Series - Premium (3.75, 4.7, 6.0 mm) - Platform height 2,3,4,5,6,7

Straight Abutments (Long, straight, narrow, anatomic, curve):

ST Series: Length 8.5, 9.5, 11.5, 12.5 mm.

STA Series: With Shoulder profile height 1, Length 9 mm; profile height 2, Length 10; profile height 3, Length 11; profile height 4 Length 12.

STN: Narrow length 11 mm.

SLM Series: Anatomic Straight Abutment: profile height 1,2,3 length 9,10,11 mm.

SCM Series: Anatomic Straight Abutment: profile height 1,2,3 length 9,10,11 mm.

Angulated Abutments (standard, anatomic, curve):

Standard Angulated Abutment Length 7,9,11 Angulations 15°, 25°.

Anatomic Angulated Abutments Platform height 1,2,3,4 Angulations 15°, 25°.

Anatomic Angulated Curve Platform height 1,2,3, Angulations 15°, 25°.



Ball Attachments Platform height 1,2,3,4,5,6 and related components covers and caps.

#### Material:

NOVA® Dental Implants System and Dental Abutments System is made of Titanium alloy (Ti-6Al-4V ELI) that conforms to ASTM F136.

#### 10 Intended use / Indication for Use:

NOVA ® Dental Implants System is indicated for use in surgical and restorative applications for placement in the bone of the upper or lower jaw to provide support for prosthetic devices, such as artificial teeth, in order to restore the patient's chewing function. NOVA ® Dental Implants System is indicated also for immediate loading when good primary stability is achieved and with appropriate occlusal loading.

## 11 Performance Standards or Special Controls

- ISO 7405 Second edition 2008-12-15 Dentistry Evaluation of biocompatibility of medical devices used in dentistry.
- ISO 5832-3:1996 Implants for surgery -- Metallic materials -- Part 3: Wrought titanium 6-aluminium 4-vanadium alloy.
- ISO 14801 Second edition 2007-11-15 Dentistry-Implants-Dynamic fatigue test for endosseous dental implants.
- FDA guidance document: Class II Special Controls Guidance Document: Root-form Endosseous Dental Implants and Endosseous Dental Abutments - Guidance for Industry and FDA Staff.

### 12 Substantial Equivalence

Substantial Equivalent Table CHARACTERISTIC	Candidate No.1 PCI Dental Implant	PREDICATE DEVICE  ATID Internal Hex Implants
510k Company Name	NOVA Implants Ltd.	K063364 (primary predicate) Alpha-Bio Tec Ltd.
Indication for Use	NOVA® Dental Implants System is indicated for use in surgical and restorative applications for placement in the bone of the upper or lower jaw to provide support for prosthetic devices, such as artificial teeth, in order to restore the patient's chewing function. NOVA® Dental Implants System is indicated also for immediate loading when good primary stability is achieved and with	The Alpha-Bio Dental Implant System® is indicated for use in surgical and restorative applications for placement in the bone of the upper or lower jaw to provide support for prosthetic devices, such as artificial teeth, in order to restore the patient's chewing function.  Two stage: ATID, DFI,SPI,SFB,ATIE OF, ITO, SPR One stage: ITO, SPR One stage and One Piece: ARRP,



MEDICAL DEVICES & DEVELOPMENT	appropriate occlusal loading.	ARPB, ARRC 3mmd diameter are intended only for placement at the mandibular central and lateral incisors and maxillary and lateral incisors. Indicated also for denture stabilization using multiple implants  One stage and One Piece for temporary use: ARR, ARB, ARS, ARSB permit immediate splint stability for crown, bridge and prosthesis, protect graft sites.  The Alpha-Bio Dental Implant System® is indicated also for immediate loading when good primary stability is achieved and with appropriate occlusal loading. DFI, SPI, ARRP, ARPB.  The Alpha-Bio Dental Implant System® is indicated also for immediate loading on single tooth when good primary stability is achieved and with appropriate occlusal loading. SPI, SFB.  All implants with diameter 3.3mmd should not use angled abutment.
Device Design	Threaded, root form endosseous implants	Threaded, root form endosseous implants
Classification	Class 2 872.3640 P.Code DZE	Class 2 872.3640 P.Code DZE
Material	GR-5 Titanium Ti-6Al-4V ELI	GR-5 Titanium Ti-6Al-4V ELI
Diameters mm	3.3, 3.75, 4.2, 5, 6	3.3, 3.75, 4.2, 5, 6
Lengths mm	8, 10, 11.5, 13, 16 [16 not for 6 mm]	8, 10, 11.5, 13, 16
Implant Body Contour	Straight	Straight
Anatomical Site	Oral Cavity	Oral Cavity
Principle of operation	Conventional procedure	Conventional procedure
Self tapping	✓	✓
Sterilization	Gamma Ray	Gamma Ray
Packaging	Double packaging	Double packaging
Bone preparation Procedure	Conventional drills	Conventional drills
Substantial Equivalent Table	Candidate No.2	PREDICATE DEVICE
CHARACTERISTIC	PSI Dental Implant	SPI Internal Hex Implants
510k		K063364 (primary predicate)
Company Name	NOVA Implants Ltd.	Alpha-Bio Tec Ltd.
Indication for Use	NOVA® Dental Implants System is indicated for use in surgical and restorative applications for placement in the bone of the upper or lower jaw to provide support for prosthetic devices, such as artificial teeth, in order to restore the patient's chewing function. NOVA®	The Alpha-Bio Dental Implant System® is indicated for use in surgical and restorative applications for placement in the bone of the upper or lower jaw to provide support for prosthetic devices, such as artificial teeth, in order to restore the patient's chewing function.



	Dental Implants System is indicated also for immediate loading when good primary stability is achieved and with appropriate occlusal loading.	Two stage: ATID, DFI,SPI,SFB,ATIE OF, ITO, SPR One stage: ITO, SPR One stage and One Piece: ARRP, ARPB, ARRC 3mmd diameter are intended only for placement at the mandibular central and lateral incisors and maxillary and lateral incisors. Indicated also for denture stabilization using multiple implants One stage and One Piece for temporary use: ARR, ARB, ARS, ARSB permit immediate splint stability for crown, bridge and prosthesis, protect graft sites. The Alpha-Bio Dental Implant System® is indicated also for immediate loading when good primary stability is achieved and with appropriate occlusal loading. DFI, SPI, ARRP, ARPB. The Alpha-Bio Dental Implant System® is indicated also for immediate loading on single tooth when good primary stability is achieved and with appropriate occlusal loading. SPI, SFB. All implants with diameter 3.3mmd should not use angled abutment.
Device Design	Threaded, root form endosseous implants	Threaded, root form endosseous implants
Classification	Class 2 872.3640 P.Code DZE	Class 2 872.3640 P.Code DZE
Material	GR-5 Titanium Ti-6Al-4V ELI	GR-5 Titanium Ti-6Al-4V ELI
Diameters mm	3.3, 3.75, 4.2, 5, 6	3.3, 3.75, 4.2, 5, 6
Lengths mm	8, 10, 11.5, 13, 16 [16 not for 6 mm]	8, 10, 11.5, 13, 16
Implant Body Contour	Tapered	Tapered
Anatomical Site	Oral Cavity	Oral Cavity
Principle of operation	Conventional procedure	Conventional procedure
Self tapping	✓	<b>✓</b>
Sterilization	Gamma Ray	Gamma Ray
Packaging	Double packaging	Double packaging
Bone preparation Procedure	Conventional drills	Conventional drills

	Product Code: NHA Regulation No. 872.3630		
	Candidate	Reference Predicate Device	Reference Predicate Device
	NOVA Implants Itd	SGS International Itd	A.B.DENTAL DEVICES
Product Name	Healing Abutments (PMI)	Healing Abutments (HN,HNN,HWN)	PON
K Number		K133362	K051719, K112440



Indication for Use	NOVA® Dental Implants System is indicated for use in surgical and restorative applications for placement in the bone of the upper or lower jaw to provide support for prosthetic devices, such as artificial teeth, in order to restore the patient's chewing function. NOVA® Dental Implants System is indicated also for immediate loading when good primary stability is achieved and with appropriate occlusal loading.	SGS® Dental Implants System is intended for surgical placement in the maxillary and/or mandibular arch to support crowns, bridges, or overdentures in edentulous or partially edentulous patients. SGS® Dental Implants System may be immediate loading when good primary stability is achieved and with appropriate occlusal loading. Two Stage Implants: P1, P7, P7N.  One Stage: P7S, P9S. One Stage & One-Piece 3.0 mm diameter implants: P7S, P9S are intended for placement at the mandibular central and lateral incisors and maxillary and lateral incisors. Indicated also for denture stabilization using multiple implants.  One stage & One-Piece 2.4 mm diameter implants for temporary use or long term use: P9S permit immediate splint stability and long term fixation of new or existing crown, bridge and prosthesis. PEEK Temporary Abutments	The AB Dental Devices implants are intended for surgical' placement in the maxillary mandibular and/or arch to support crowns, bridges, or overdlentures in edlentulous or partially edentulous patients.  17 Integral implant, 15 Conical implant, P15 Temporary abutment, P12-T,L Temporary flat connection abutment, and P16 Straight adaptor are appropriate for immediate loading when good primary stability is achieved and with appropriate occlusal loading.
		are not to exceed 30 days.	
Dimensions	Narrow, Length: 2,3,4,5,6,7	Narrow, Length: 2,3,4	Narrow, Length: 3, 5, 7
Material	Titanium alloy Ti-6Al-4V-ELI.	Titanium alloy Ti-6AI-4V-ELI.	Titanium alloy Ti-6Al-4V-ELI.
Connection	Internal Hex	Internal Hex	Internal Hex
	Candidate	Reference Predicate Device	Reference Predicate Device
	NOVA Implants Itd	SGS International Itd	A.B.DENTAL DEVICES
Product Name	Healing Abutments (HC, HCW)	Healing Abutments (H,HN, HW)	PO PO
K Number		K133362	K051719, K112440
Dimensions	Normal, Length:2,3,4,5,6,7 Narrow, Length: 2,3,4,5,6,7 Wide, Length: 3,4,5,6	Normal, Length:2,3,4,5,6 Narrow, Length:3,5 Wide, Length: 3,5	Normal, Length: 2,3,4,5,6,7 Narrow, Length: 2,3,4,5,6,7 Wide, Length: 3,4,5,6
Material	Titanium alloy Ti-6Al-4V-ELI.	Titanium alloy Ti-6AI-4V-ELI.	Titanium alloy Ti-6Al-4V-ELI.
Connection	Internal Hex	Internal Hex	Internal Hex
	Candidate	Reference Predicate Device	
	NOVA Implants Itd	SGS International Itd	
Product Name	Ball attachment BAT	Overdenture Ball attachment S3	



K Number		K133362	
Dimensions	Normal: Length:1,2,3,4,5,6,7	Normal: Length:1,2,3,4,5,6,7	
Material	Titanium alloy Ti-6Al-4V-ELI.	Titanium alloy Ti-6AI-4V-ELI.	
Connection	Internal Hex, overdenture rest.	Internal Hex, overdenture	
		rest.	
Related	Metal and silicon caps	Metal and silicon caps	
Components			
	Candidate	Reference Predicate Device	
	NOVA Implants Itd	SGS International Itd	
Product Name	Straight Titanium Abutment	Straight Titanium Abutment	
	ST, STN	S1N,S1WN, S1,S1N,S1W	
K Number		K133362	
Dimensions	Normal: Length: 8.5, 9.5, 11.5,	Narrow: Narrow, Wide -	
	12.5	Length:9	
	Narrow: Length: 9 (=with the	Normal: Length: 5, 7, 9, 12,	
	external hex length its 11mm)	15	
		Narrow: Length: 7, 9	
Material	Titanium alloy Ti-6Al-4V-ELI.	Titanium alloy Ti-6AI-4V-ELI.	
Connection	Internal Hex	Internal Hex	
	Candidate	Primary Predicate	
	NOVA Implants Itd	Alpha-Bio Tec	
Product Name	Straight Titanium Abutment	Straight Titanium Abutment	
	STA	TLA1-4, TLASP	
K Number		K063364	
Dimensions	Normal: Profile Height 1, 2,	Normal: Profile Height 1, 2,	
	3,4 mm	3,4 mm	
Material	Titanium alloy Ti-6Al-4V-ELI.	Titanium alloy Ti-6AI-4V-ELI.	
Connection	Internal Hex	Internal Hex	
	Candidate	Reference Predicate Device	Reference Predicate Device
	NOVA Implants Itd	SGS International Itd	A.B. Dental Devices
Product Name	Anatomic Straight Titanium	Anatomic Straight Titanium	Anatomic Straight Titanium
	Abutment SLM, SCM	Abutment S1A	Abutment P3S
K Number		K133362	K132125
Dimensions	Normal: Profile Height 1, 2, 3 mm	Normal: Profile Height 1, 2, 3 mm	Normal: Profile Height 1, 2, 3 mm
Material	Titanium alloy Ti-6Al-4V-ELI.	Titanium alloy Ti-6Al-4V-ELI.	Titanium alloy Ti-6Al-4V-ELI.
Connection	Internal Hex	Internal Hex	Internal Hex
	Candidate	Reference Predicate Device	
	NOVA Implants Itd	SGS International	
Product Name	Angular Titanium Abutment	Angular Titanium Abutment	
	A O M	S2,S2L	
	ASM		
K Number		K133362	
K Number Dimensions	Normal: Angle 15°, 25°- Length 7, 9, 11 mm		



Connection	Internal Hex	Internal Hex	Internal Hex
	Candidate	Reference Predicate Device	Reference Predicate Device
	NOVA Implants Itd	SGS International	Paltop
Product Name	Anatomic Angular Titanium	Anatomic Angular Titanium	Anatomic Angulated
	Abutment ANG	Abutment S2A , S2AN	Abutments narrow/standard
K Number		K133362	K112795
Dimensions	Normal: Angle 15°, 25°- Profile	Normal: Angle 15°, 25°-	Normal: Angle 15°, 25°-
	1,2, 3, 4 mm	Profile 1,2, 3 mm	Profile 1,2, 3 mm
Material	Titanium alloy Ti-6Al-4V-ELI.	Titanium alloy Ti-6Al-4V-ELI.	Titanium alloy Ti-6Al-4V-ELI.
Connection	Internal Hex	Internal Hex	Internal Hex
	Candidate	Reference Predicate Device	Reference Predicate Device
	NOVA Implants Itd	SGS International	Paltop
Product Name	Anatomic Angular Titanium	Anatomic Angular Titanium	Anatomic Angulated
	Abutment ANT	Abutment S2AN, S2AN	Abutments narrow/standard
K Number		K133362	K112795
Dimensions	Normal: Angle 15°, 25°- Profile	Normal: Angle 15°, 25°-	Normal: Angle 15°, 25°-
	1,2, 3 mm	Profile 1,2, 3 mm	Profile 1,2, 3 mm
Material	Titanium alloy Ti-6AI-4V-ELI.	Titanium alloy Ti-6Al-4V-ELI.	Titanium alloy Ti-6Al-4V-ELI.
Connection	Internal Hex	Internal Hex	Internal Hex

## Summary of Equivalence:

NOVA® Dental Implants System shares similarity to Alpha-Bio Tec K063364 (primary predicate); in terms of intended use, indication for use, technological characteristics, performance and user interface.

NOVA® Dental Abutments System shares similarity to Alpha-Bio Tec K063364 (primary predicate); And reference predicate devices: SGS International K133362; A.B.Dental Devices K051719, K112440, K132125; Paltop K112795; Nobel Biocare K050705; in terms of intended use, indication for use, technological characteristics, performance and user interface.

NOVA® Dental Implants System shares the same raw material as its predicated devices, the only difference whereas NOVA Dental Implants provides surface treatment of sand blast with acid etched in similar to Alpha Bio Tec K063364, and also anodized surface treatment, which is similar to Nobel Biocare K050705.

As demonstrated by the substantial equivalent table, the differences raise no new issues of safety or effectiveness, since NOVA® Dental Implants System and Dental Abutments System shares similarity to its predicate devices.

Clinical Testing - No clinical data is included in this submission.



Sterilization validation tests and Shelf life testing were carried out. Test results have demonstrated that the SAL of 10-6 was achieved and all testing requirements were met. Mechanical Testing - NOVA® Implants Technologies has conducted Fatigue – Static & Cycling tests which comply with ISO 14801 Second edition 2007-11-15 Dentistry-Implants-Dynamic fatigue test for endosseous dental implants. The results of the fatigue load testing demonstrate that the subject devices are substantially equivalent to the predicate

Biocompatibility test has been performed. Test results have demonstrated no evidence of causing cell lysis or toxicity and thus present equivalent performance as its predicate devices.

Risk management process was carried out with accordance to ISO 14971:2007.

The NOVA® Implants system shares the same intended use, raw material, design, technological characteristics, warnings, contraindications as its predicate devices and thus considered to be substantially equivalent to its predicate devices.

## Conclusion:

devices.

As verified by bench testing, mechanical testing, risk assessment and substantial equivalence, NOVA® Dental Implant System shares similarity with its predicated devices by term of intended use, raw material and technical design. The fundamental scientific technology of the device is identical or very similar to the referenced predicate devices, therefore NOVA® Dental Implant System is considered to be substantially equivalent to its predicate devices.